



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,889	09/23/2006	Seiji Kashioka		5759
7590	05/07/2009		EXAMINER	
Seiji Kashioka 19743 Vista Hermosa Dr Walnut, CA 91789			MILLIKIN, ANDREW R	
		ART UNIT	PAPER NUMBER	
		2837		
		MAIL DATE	DELIVERY MODE	
		05/07/2009	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,889	<b>Applicant(s)</b> KASHIOKA, SEIJI
	<b>Examiner</b> ANDREW R. MILLIKIN	<b>Art Unit</b> 2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 20 January 2009.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-12 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Specification***

1. The amendment filed 20 January 2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: amendments to paragraph [0002]; "few beats" in [0007]; "basic note corresponding to denominator" in [0039]; "said basic notes" and "basic note" in [0040]; "5/8" and "3/8" in [0051]; "recorded" in [0054].

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 8 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim is directed to nonfunctional descriptive material per se (media holding data).

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6-7 & 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 6: It is unclear what is meant by "second step for input of every beats in whole music listening to recording of the first step using fourth program, and making duration data of the input using fifth program."
7. Claim 11: it is unclear what is meant by "position of said point of attention change according to time in other word measure and number of beat coming next in a bar."
8. Claims will be treated as best understood in their present form.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 4-5 & 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Herberger et al. (U.S. Patent No. 6,518,492, hereafter '492).
11. Claim 4: '492 teaches a computer readable memory containing computer program to indicate consecutive beat timing (see claim 3), said program comprising: first program for reading out data about each beat duration time stored in memory or media

and get beat duration time one by one (cols. 5-6); second program for measuring period of said duration time one by one (col. 6); third program for indicating the timing of passing of said measured period by visual, audio or other output (see claim 3).

12. Claim 5: '492 teaches a computer readable memory containing computer program claimed in claim 4, the program further comprising: fourth program for input of each one by one beat timing from a mouse or other device operated by user for initial input or partial modification purpose (col. 11, lines 53-65); fifth program for recording each one by one beat duration data on memory or media based on input by fourth program (col. 12).

13. Claim 8: '492 teaches computer readable media holding each one by one beat duration data about music, performance or operation to be used in claim 4, each of said beat duration data being paired with corresponding bar number and beat number, and said beat duration data having same format with data used in the first means of metronome in claim 1 (cols. 11-12).

#### ***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over '492 in view of Tumblin (U.S. Patent No. 4,321,853, hereafter '853).

16. Claim 1: '492 teaches an apparatus which indicates consecutive timing of beat (see claim 3), comprising: first means for reading out data about each beat duration time stored in memory or media (cols. 5-6); second means for measuring period of said duration time one by one (col. 6); third means for indicating the timing of passing of said measured period using visual, audio, or other output (see claim 3).

17. '492 does not explicitly state that the apparatus is a metronome apparatus, though it could be construed as such, since it displays the BPM of a track. However, '853 teaches that metronomes are useful in order to show timing (col. 2, line 13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a metronome like that of '853 with '492 in order to have indicated the timing of passing of said measured periods using a metronome since they are known to be useful in showing timing. This could be used to assist in "many settings" such as when combining "musical elements that have been taken from different compositions" or in a "DJ setting," as are described in '492 in the paragraphs bridging cols. 1 & 2. Further, a metronome could be used with '492 in order to allow a performer to play along with a song which has been analyzed for beats using the method of '492.

18. Claim 2: '492 & '853 teach the metronome apparatus claimed in claim 1, further comprising: fourth means for input of each one by one beat timing with a button or other device operated by user for initial input or partial modification purpose ('492, col. 11, lines 53-65); fifth means for recording data acquired by fourth means on memory or media ('492, col. 12).

19. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over '492 & '853, as applied to claim 1 above, and further in view of George (U.S. Patent No. 4,649,794, hereafter '794). '492 & '853 teach the metronome apparatus claimed in claim 1, wherein the third means is a display for showing point of attention, which moves up and down, wherein downward movement changes to upward movement at the timing of beat ('853, col. 3, lines 8-37), but do not explicitly teach that the point of attention moves up and down on a vertical bar. '794 teaches that a vertical bar can be used in a metronome. It would have been obvious to one of ordinary skill in the art at the time the invention was made, or at least obvious to try, to have used a vertical bar like that of '794 with the obvious combination of '492 & '853 as a matter of design choice in order to have attained a desired aesthetic appeal.

20. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over '492 & '853, as applied to claims 1, 2, 4, & 5 above, and further in view of Miyake (U.S. Patent No. 5,256,832, hereafter '832) and Kikumoto et al. (U.S. Patent No. 4,694,724, hereafter '724). '492 & '853 teach the concepts of claims 1, 4, & 5, as well as a step for input of every beats in whole music listening to recording of the first step using fourth program, and making duration data of the input using fifth program ('492, cols. 4-5 & 11-12), but do not explicitly teach a method of production of music minus one or karaoke (wherein sound of a part is excluded in recorded sound) utilizing those metronomes/computer programs comprising: first step for sound recording of

performance by all members including said part to be excluded; third step for sound recording of performance excluding said part, wherein the performance is played in the same tempo with the performance of the first step, using the first computer program for reading out the duration data of each beat made in the second step and the second and third computer program for indicating the beat one by one according to the duration data; fourth step for writing the recorded sound made in the third step on media or producing copies of it.

21. However, karaoke or "music minus one" tracks are commonly known in the art to be comprised of full performances with one part removed such that performers can perform the removed part along with the karaoke track. Since '492 and '853, as combined, teach a suitable method for detecting the beats of a track and displaying it using a metronome, and since metronomes have long been known to be useful in assisting performers to play with proper timing, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used, or at least to have tried using, this method to generate a metronome display in order to allow performers to play to the beat of the full performance. In creating a karaoke track (which are commonly known and would be obvious to create because they have long been known in the art to be useful in allowing users to play along with music), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized said generated metronome display in the recording of said karaoke track in order to assist performers in playing with the proper timing and to have recorded the

sound made on a media or to have produced copies of it in order to distribute the karaoke track to consumers.

22. Nonetheless, neither '492 nor '853 specifically teach a step for sound recording of performance excluding said part, wherein the performance is played in the same tempo with the performance of the first step, using the first computer program for reading out the duration data of each beat made in the second step and the second and third computer program for indicating the beat one by one according to the duration data. However, '832 teaches a method for making duration data of each beat aligned with a recording (see second embodiment spanning cols. 11 & 12), as does '724 (see paragraph spanning cols. 3 & 4; the user simply inputs the tempo themselves). As is noted in '832, a beat which is human and rich in music and not fixed as in a [normal] metronome is preferable (col. 15, lines 5-7) and "in actual performance, usually, [a song's] tempo varies during the performance due to the performer's feeling or degree of elation" in which case "the beat count speed varies." It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the methods described in '832 or '724 with '492 & '853 in order to align the duration data of each beat with the recording of the first step in order to have provided duration data of each beat in the second step to the metronome in claim 1 or computer program stored in memory in claim 4 in order to have accounted for the fact that in actual performance, usually, a song's tempo varies during the performance due to the performer's feeling or degree of elation.

23. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over '492, '853, '832, & '724, as applied to claim 6 above, and further in view of Endoh et al. (U.S. Patent No. 6,016,295, hereafter '295). '492, '853, '832, & '724, as combined above, teach the method claimed in claim 6, but do not explicitly teach that the media in the fourth step is delivered in such a way that duration data of each beat of the second step is combined with recorded sound of the third step on separate track of the same media including but not limited to compact disk or on each individual media. However, '294 teaches that recording a practice rhythm count or metronome sound on a karaoke track can be advantageous in order to help users to keep proper timing with the track (col. 10, lines 56-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a practice rhythm count or metronome sound on the karaoke tracks generated and recorded in claim 6 in order to help users keep proper timing with the track. Presenting either the metronome sound and karaoke tracks in separate tracks would have been obvious to one of ordinary skill in the art at the time the invention was made in order to have provided users with the option of whether they want to listen to the metronome sound for the karaoke track, the karaoke track itself, or both at the same time.

24. Claims 10 & 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over '492, '853, & '794, as applied to claim 3 above, and further in view of Ogura et al. (JP 55087982, hereafter '982). '492, '853, & '794 teach the metronome apparatus claimed in claim 3, but do not explicitly teach that downward movement is accelerative and

upward movement is deaccelerative for precise prediction and perception of beat timing by viewer or that light emitting intensity at downmost position in third means is stronger than intensity at other position. However, Ogura et al. teaches using a metronome with an LED display that is fast toward the dropping point and slow toward the top point and wherein brightness is gradually reduced toward the top point is advantageous because it imparts a rhythmical moving feeling to the indication of the metronome. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used said concepts in Ogura et al. with '492, '853, & '794 in order to have imparted a rhythmical moving feeling to the indication of the metronome.

***Response to Arguments***

25. Applicant's arguments filed 20 January 2009 have been fully considered but they are not persuasive.
26. Applicant argues that claim 8 has been amended to obviate the 35 USC 101 rejection. Examiner disagrees and notes that the claim is still directed to nonfunctional descriptive material *per se* (media holding data).
27. Applicant argues that "data about each beat duration time" cannot be sound data. Examiner disagrees, since sound data contains data about each beat duration time at least in the form of its amplitudes and/or frequency spectrum.
28. Applicant argues that in '492, all individual beat timings are not required to be input. Examiner does not agree that "each one by one" implies "all." Examiner notes that even if that were the case, '492 explicitly teaches "the user-based estimation process

will preferably continue for so long as the user desires, until the end of the music is reached" in col. 12.

29. Applicant argues that '492 does not store beat duration data on the media. Examiner disagrees, since sound data contains data about each beat duration time at least in the form of its amplitudes and/or frequency spectrum. Examiner further notes that each one by one tap is recorded by '492 on a media in col. 12.

30. Applicant argues that a BPM estimate is a numeric value, not timing of beat. Examiner disagrees; the BPM is the timing of beat by definition.

31. Regarding claim 1, Applicant argues that neither '492 nor '853 teach beat timing varying along the music. Examiner does not see where this limitation is present in the claim.

32. Regarding claim 2, Applicant argues that '492 does not teach "partial modification purpose," but concedes that '492 teaches an additional input for the BPM selection process. Examiner does not see a distinction between "additional input for BPM selection process" and "partial modification purpose," since the user's tapping modifies the BPM estimate. Applicant argues that in '492, there is no description of memory operation of individual beat timing or duration time. Examiner disagrees and notes that this is taught in column 12.

33. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

34. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "moving tempo," "beat timing varying along the music," etc.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

35. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW R. MILLIKIN whose telephone number is (571)270-1265. The examiner can normally be reached on M-R 7:30-5 and 7:30-4 Alternating Fridays (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew R. Millikin/  
Examiner, Art Unit 2837

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837